



Original Article

Predictive Association between Perceived Social Support and Infertility-Related Stress in Married Couples in Pakistan

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ABSTRACT

Infertility is indeed a global issue and has a profound impact on married couples, affecting various aspects of their relationship, emotional well-being, and quality of life. The WHO estimates that 10-15% of couples globally experience infertility, with rates varying across regions. **Objective:** To examine the predictive association between perceived social support (PSS) and infertility-related stress among married couples experiencing infertility. **Methods:** For this research, 50 married couples selected through purposive sampling from the Gynecology and Obstetrics departments of several hospitals and infertility clinics in Karachi, Pakistan with the age ranged between 20-40 years ($X=32.3$; $SD= 3.12$). Brief interviews of the participants were conducted, and Urdu versions of the Multidimensional Scale of Perceived Social Support and Infertility-Related Stress Scale were administered. Data was analyzed through SPSS (V-25.0) using descriptive statistics, and regression analysis. **Results:** The findings showed a significant predictive association between perceived social support and infertility stress ($R^2=.540$, $\beta=-.73$, $P< 0.00$). **Conclusions:** This highlights a significant predictive association between the stress associated with infertility and the level of perceived social support, which significantly impacts individuals coping with fertility difficulties. These findings have implications for offering compassionate and efficient care, devising customized interventions and support programs for couples encountering fertility issues, and offering guidance to hospitals.

INTRODUCTION

Infertility, as defined by the World Health Organization (WHO) as the failure to conceive after a year or more of unprotected intercourse, poses a significant health challenge [1]. It is categorized into primary and secondary forms among which primary infertility means the failure to conceive after a year of unguarded sexual activity without prior successful conception, while secondary infertility occurs when couples who have previously conceived children find themselves unable to conceive again [2]. Infertility, as a global challenge has impacted around 48.5 million couples in 2010 [3]. According to the Centers for Disease Control and Prevention (CDC), in 2015 till 2017, approximately 8.8% of married females of ages 15-49 in the US, experienced infertility. Data also suggest that developing countries face a higher incidence of infertility due to limited information regarding its causes, and

available treatments. In Pakistan, for instance, the prevalence of infertility found about 22%, with primary infertility affecting 4% of those affected [4]. Infertility disorders cause significant challenges for married couples yearning to have children. In societies, who prioritize child bearing, childless couples may face societal censure, and the absence of children in such contexts can lead to adverse social, emotional, and health consequences. Recent studies have revealed that individuals with infertility issues consistently report high levels of psychological distress and more symptoms of anxiety and depression than fertile individuals [5]. Additionally, infertility is a complex stressor that demands numerous emotional adjustments, and is linked to dysfunction in sexual relationship, anxiety, depression, and identity crises [6]. The impact of infertility may withstand long after the



initial phase of childlessness [7]. As noted by one of the study's findings, both spouses may grapple with feelings such as unhappiness, sorrow, anger, frustration, guilt, and even shame [8]. There may be a sense of meagerness or loss, particularly if they had planned to have biological children. Couples navigating infertility may feel isolated from other couples and have feelings of embarrassment and humiliation about their inability to conceive [9]. This sense of seclusion can compound feelings of despair or depression. Infertility-Related Stress (IRS) in married couples impacts the emotional, interpersonal, economic, and corporeal dimensions of their lives. According to the research findings, perceived social support is a subjective estimation of individual's existing resources that act as a shield during difficult circumstances in life [10]. In the difficult voyage of infertility, social support emerges as a fundamental source of empathetic understanding. Many researches indicated that social support is a vital source of reducing infertility related stress because infertile couples found satisfactory solutions by sharing their problems with others. A Social support network comprising of family, friends, and workmates has a beneficial effect on complexities fertility stress as these networks become a vital source of bouncing back from the distressful impacts [11]. These networks provide strength, and lessening the sense of isolation associated with fertility challenges. Furthermore, social support plays a substantial role in uplifting an individual and minimizing the impact of stressors in the adverse consequences [12]. Numerous studies have indicated that increased social support from both partners and broader social networks is associated with reduced levels of IRS [13]. Keeping in view the existing literature and the dire need to explore the factors that may play a role in reducing the level of distress in the population having infertility, current study has been designed with the objective to explore the predictive association between PSS and infertility related stress among married couples experiencing infertility. Exploring the factors that impact stress levels can inform tailored interventions aimed at enhancing the psychological health of affected individuals. Examining this stress within a specific cultural contexts i.e., Pakistan, offers the understanding of the influence of cultural norms and societal pressures on the experience of stress related to infertility [14]. As a result, this study offers the valued acumens to the broader conversation on this subject, especially in the milieu of Pakistani society. The outcomes provide a basis for designing interventions that address infertility-related stress effectively, thereby reducing its psychological burden. Various studies in Pakistan acknowledge the psychological troubles faced by individuals with infertility, research highlighting the impact of PSS on infertile couples is still an aspect to explore. In continuation of the above-mentioned argument, this study

investigates into examining infertility stress and its connection with PSS among married couples experiencing infertility in Pakistan.

This study was aimed to examine the predictive association between perceived social support (PSS) and infertility related stress among married couples experiencing infertility.

METHODS

This cross-sectional study spanned from September to November 2023, and involved a sample of 50 infertile couples aged between 20-40 years ($X=32.3$; $SD= 3.12$). The sample size was estimated through G*power software. Data were gathered from the departments of Obstetrics & Gynecology across various public and private hospitals, as well as infertility clinics in Karachi, Pakistan by using a non-probability purposive sampling technique after getting approval from Ethical Review Board [Letter No: ICP-1(101) 6143] of the Institute of Clinical Psychology, University of Karachi. Inclusion criteria stipulated that participants must be Pakistani nationals, aged between 20 to 40 years, and married for at least one year. Additionally, participants were required to have a diagnosis of primary infertility and not have initiated IVF treatment. The study excluded those participants who were not Pakistani nationals or their age was below 20 or above 40 years, and if they have started IVF treatment. Before participation, written consent was obtained from each participating individual. Participants provided their consent willingly after being briefed on the study's details and assured confidentiality. The current study incorporated the use of the demographic information form, the Multidimensional scale of Perceived Social Support (MPSS), and the Infertility related Stress Scale (IRSS) [10,15]. For all the scales, their translated versions (in Urdu language) were used. Completion of the questionnaires took 15 to 20 minutes. The Statistical Packages Social Sciences (SPSS) version-25.0 was used to analyze the data. Frequencies and percentages were used for categorical data whereas, Regression analysis served as the chosen method for analyzing the predictive association between the study variables.

RESULTS

Table 1 provides an overview of the frequencies and percentages of socio-demographic variables of the sample. The data includes an equal distribution of both genders in the form of couples (i.e., 50 wives and 50 husbands). Regarding education, 10.0% of the participants had done matriculation, 30.0% had completed intermediate education, 28.0% had graduated, 25.0% held master's degrees, and 7.0% had postgraduate qualifications. In terms of occupation, 19.0% were employed in government positions, 43.0% worked in the

private sector, 33.0% were homemakers, and 5.0% belonged to other occupational categories. Concerning the duration of marriage, 42.0% had been married for 1-5 years, 52.0% for 6-10 years, and 6.0% for 11-15 years.

Table 1: Socio-Demographic Characteristics of Sample (n=100)

Demographics	Category	n (%)
Gender	Male	50 (50.0)
	Female	50 (50.0)
Education	Matriculation	10 (10.0)
	Intermediate	30 (30.0)
	Graduation	28 (28.0)
	Masters	25 (25.0)
	Postmasters	07 (7.0)
Profession	Public Sector	19 (19.0)
	Private Sector	43 (43.0)
	Home-maker	33 (33.0)
	Other	05 (5.0)
Matrimonial Period	1-5 years	42 (42.0)
	6-10 years	52 (52.0)
	11-15 years	06 (6.0)

Table 2 showed the descriptive of perceived social support with the data that indicates the mean score of the sample of study and good internal consistency of the scale

Table 2: Descriptive Statistics and Internal Consistency of the Scale (N=100)

Variable	Minimum	Maximum	M ± SD	Cronbach's Alpha
PSS	3.00	7.00	5.59 ± 1.14	0.97

Table 3 showed that infertility-related stress the descriptive of IRS with the data that indicates the mean score of the sample of study and good internal consistency of the scale

Table 3: Descriptive Statistics and Internal Consistency of the Scale (N=100)

Variable	Minimum	Maximum	M ± SD	Cronbach's Alpha
PSS	1.30	6.3	3.03 ± 1.23	0.93

Table 4 showed that perceived social support significantly predicts infertility-related stress. Perceived social support accounts for 54% of the variance in the outcome variable i.e., infertility-related stress, and the model demonstrates significance as ($R^2=.5450$, $\beta=-.74$, $P<0.001$).

Table 4: Linear Regression Analysis with Perceived Social Support as a Predictor of Infertility-related Stress in Couples with Infertility (n=100)

Predictor Variable	B	β	SE	t	p
Constant	90.00	-	5.11	18.00	.000
Perceived Social Support	-.79	-.74	.07	-10.73	.000

Note: $R^2=.54$, $p<0.001$.

DISCUSSION

The study's findings have yielded several significant conclusions and have been analyzed in light of previous

research to study the predictive association of PSS and infertility stress in infertile couples for which 50 married couples were studied in this study. Infertility poses a significant problem within our society and culture, mostly for those couples, who are deprived of their parental role and face challenges from society. Mental health issues may arise among infertile men and women as a result of inadequate social support and the experience of infertility [16]. Seeking social support may serve as an effective coping mechanism in reducing stress due to infertility. Apart from personality features, social support, stressor-related evaluations, and coping strategies, may also be supposed to play a crucial role in determining vulnerability to stress. Many studies have been done to inspect the influence of social support from friends, family members, and one's partner on infertility-related stress [17]. Current study also investigated the predictive association between PSS and stress due to infertility in wedded couples. Findings revealed that PSS explained 54% of the variance in IRS scores for those couples participated in current study, as depicted in Table 2. These findings echo previous research emphasizing PSS as a crucial factor in mitigating stress associated with infertility. Couples who have infertility issues often find comfort and resolutions by sharing their difficulties with others [18, 6]. Furthermore, research findings also indicated significant inverse relationship in PSS and mental health challenges among women facing sterility [19, 20]. The association between PSS and fertility-related stress has the strongest relation which was found both in men and women. This finding is consistent with existing literature demonstrated a negative correlation between satisfaction with social support networks and infertility-related stress [21]. Similarly, it was found that social support exhibited a negative association not only with infertility stress but also with anxiety and depression [22]. Numerous studies have further indicated that social support can enhance effective coping strategies and cognitive adjustment amidst infertility challenges [19, 23]. Further researches also demonstrated a negative correlation between satisfaction with support networks and IRS [21]. Similar findings have demonstrated that social support exhibited a negative association not only with infertility stress but also with anxiety and depression [22]. Furthermore, the results of the current study support the idea that getting social support from family and friends assists in reducing stress levels in both men and women. Previous evidence demonstrated that social support from relatives, friends, and colleagues has a positive impact on infertility stress [17]. Moreover, dissatisfaction with social support was positively linked with health complaints, stress, anxiety, and complicated grief among childless individuals [23]. Overall, the results of the study determined that certain

social, psychological, and cultural factors social support from family friends and coworkers within Pakistani society is a significant contributor to the heightened vulnerability of psychological distress in married couples and social support plays an important role in managing these stressors. This also underscores the importance of creating awareness in society regarding increasing social support and social acceptance for men and women grappling with infertility. This further helps to develop structured programs that encompass education and counseling of couples and immediate family members. Furthermore, source of mass communication channels can be utilized to educate society and confront the intolerance and negative attitudes exhibited by society toward infertile couples.

CONCLUSIONS

This study sheds light on the significant interrelationships among infertility-related stress and PSS, which deeply impact individuals as well as couples as they navigate challenges related to fertility. PSS has a crucial part in mitigating stress related to infertility. Getting involved with supportive systems, be it through family, friends, religious communities, or support groups, offer affected individuals a feeling of validation, belongingness, required assistance, and affection nourishment. Through the sharing of their experiences, pursuing guidance, and getting empathy from others, people may become able to improve their feelings of seclusion, increase their coping mechanisms, and foster a sense of community and empathy.

Authors Contribution

Conceptualization: RM

Methodology: AAG, RM

Formal analysis: AAG, RM

Writing, review and editing: AAG, RM

All authors have read and agreed to the published version of the manuscript.

Conflicts of Interest

The authors declare no conflict of interest.

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